

Remarks

The drawings have been objected to as failing to comply with 37 CFR 1.84 (p)(4) because reference characters 20, 26, and 30 have all been used to designate a storage layer. The drawings are also objected to under that paragraph since reference characters 28 and 32 have both been used to designate SAP free melt-blown fiber layers.

In response to the objection to reference characters 20, 26, and 30 the description of figures 4 and 5 has been amended on pages 11 and 12. In particular, reference character 20 now consistently describes the storage layer, whereas reference character 26 now labels the two layer absorbent body of Fig. 4. Reference symbol 30 has been associated with the three layer absorbent body of Fig. 5. Therefore, these reference symbols are no longer used to indicate the same component rather refer to the different embodiments of figures 4 and 5 while maintaining reference character 20 in association with the storage layer of Figs. 4 and 5. With regard to reference symbols 28 and 32 both being used to designate SAP free melt-blown fiber layers, correction to the drawings has been taken such that layers 32 are now also designated with reference symbol 28. The description of figure 5 has been amended accordingly so that the SAP melt-blown fiber layers of figures 4 and 5 are both described with the same reference symbol 28. The description of figure 5 has also been amended to designate the storage layer with reference symbol 20, thereby correcting a typographical error. Review and acceptance is requested.

The drawings are also objected to as failing to comply with 37 CFR 1.84(p)(5) because they include reference symbols 8 and 9 which are not mentioned in the description. In response thereto reference symbols 8 and 9 have been cancelled from figure 3.

Claims 11 through 23 stand rejected under 35 USC 102(b) as being anticipated by or, "in the alternative" under 35 USC 103(a) as being obvious over Hamajima '406.

The Applicant considers the statement on the part of the Examiner "in the alternative" to denote "either or" and not "and/or". In particular, on page 4 second paragraph, of the Office Action the Examiner rejects claims 11, 12, 15 through 20, 22, and 23 in view of Hamajima. The Examiner thereby recites the limitations of claim 11. Moreover, the Examiner uses the word "obvious" in regard to statements on page 5 with reference to claims 13, 14 and 21. The word "obvious" is not used in the rejections of claims 11, 12, 15 through 20, 22 and 23. The Applicant therefore interprets the rejections of claims 11 to 23 as rejections of claims 11, 12, 15 through 20, 22 and 23 under 35 USC 102(b) as being anticipated by Hamajima and of claims 13, 14 and 21 are rejections under 35 USC 103(a) as being obvious over Hamajima.

Should the next Office Action contain rejections under 35 USC 102(b) and 35 USC 103(a), the Applicant respectfully requests separate identification as to which claims are being rejected under which paragraph in order to obviate further problems in the prosecution of this case.

The Applicant respectfully disagrees with the rejection of claim 11 under 35 USC 102(b) as being anticipated by Hamajima for the following reasons.

The Hamajima reference is prior art which teaches ranges touching the claimed range. According to the most recent case law, in order to anticipate the claims, the claimed subject matter in the reference must be taught with "sufficient specificity". The test of "sufficient specificity" essentially requires a particular embodiment in the prior art to fall within the claimed range. If a particular embodiment is not disclosed in the prior art which falls within the claimed range then the prior art fails to anticipate the claim. *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006) "The disclosure of a range is no more a disclosure of the end points of the range than it is each of the intermediate points."

Claim 11 recites a storage layer having 5 to 30 percent weight of hydrophilic melt-blown microfibers. Paragraph 41 of Hamajima discloses 30 to 70 percent by weight of "hydrophilic fiber or foam". This range therefore touches the claimed range and is subject to the "sufficient specificity" test. However, the Hamajima disclosure of paragraph 41 fails to mention melt-blown microfibers as claimed. In formulating the rejection, the Examiner also cites paragraph 95 of Hamajima. Referring, in particular, to the preceding paragraph 94, Hamajima describes a first layer made from bi-component fibers. The fibers are relatively thick (2.2 dtex) and are thermally bound in an air through procedure. The weight per unit area is 20 g/m². These fibers are not melt blown fibers rather most likely staple fibers. A further discrete layer of 30 g/m² of melt-blown fibers is deposited on top of this layer. On top of this latter layer is a further discrete SAP layer of 40 g/cm² of scattered particles. Finally, a further discrete layer of 30 g/cm² of microfibers is deposited. Therefore, the fiber component fraction of this composite layer is 67 percent and the

melt-blown portion of this multi-layer structure is 50 percent. Therefore, Hamajima fails to pass the "sufficient specificity" test and does not anticipate the range of 5 to 30 percent per weight of hydrophilic melt-blown fibers.

Claim 11 also claims 70 to 95 percent per weight of particulate super-absorbing material. Hamajima discloses 30 to 70 percent per weight of super-absorbing material (paragraph 44) with a preferable range of 35 to 60 percent per weight. This disclosure of Hamajima therefore touches on the claimed range and must also satisfy the "sufficient specificity" test. However, as discussed above, the super-absorbent component of polymer sheet A is 33 percent and 50 percent for sheet B (paragraph 96). These values are far removed from the lower bound of the claimed super-absorbing material range of 70 to 95 percent. Hamajima therefore fails the "sufficient specificity" test with regard to the range of particular super-absorbing material.

The claim language also recites a range of 6 to 25 g/m² of melt blown microfibers. The Hamajima reference discloses two layers of 30 g/m² each. The disclosed range therefore fails to overlap or touch the claimed range and the anticipation rejection is improper independent of the "sufficient specificity" test.

With regard to the 40 percent wet state strength recitation of claim 11, the Examiner states that the Hamajima article is structurally identical to that claim and therefore it is reasonable to expect that Hamajima also satisfies the 40 percent wet strength condition. This argument is obviated by the fact that, as pointed out above, Hamajima fails to anticipate the

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claim language. Since the structure of Hamajima is different, there is no reason to believe that the Hamajima article meets the 40 percent wet strength limitation of claim 11.

At the bottom of page 4 second to last paragraph of the Office Action the Examiner also states:

"Further, the article of Hamajima will have strength in both a wet and dry state. The measured percentage may be considered relevant to the areas measured and/or the amount of wetness and/or the dryness observed".

The Applicant does not understand the meaning of the words "considered relevant to". The Applicant interprets these words to mean "dependent on". In response thereto, the Applicant points out the detailed definition of the 40 percent wet strength recitation given in the specification starting at the middle of page 6 and extending to the top of page 8. This definition is clearly independent of the conditions for use of the article. Hamajima fails to disclose the wet strength of his article. It is the initial burden of the USPTO to find this limitation in the prior art of record. This burden has not yet been met.

On the bottom of page 4 extending to page 5 the Examiner states:

"Likewise, the applicant is reminded that the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patently distinguish

the claimed invitation from that art. If the prior art structure is capable of performing the intended use, then it meets the claim."

In response thereto, the Applicant points out that the 40 percent wet strength limitation is not one of intended use, rather a structural limitation in the claim defined by a test procedure adequately disclosed in the specification. It does not refer to a state of the diaper in which it is used rather to properties of the article claimed which are properly defined in terms of their structural meaning. The intended use statements of the Examiner are therefore incorrect.

Claim 11 recites the structure of the microfiber web capturing the super-absorbing material as follows:

"said melt-blown microfibers being connected to each other by a plurality of melt connections to ensure stability in a wet state in such a manner that said melt-blown microfibers form a dense, three-dimensional network which surrounds and immobilizes said particulate superabsorbing material, wherein no or only few melt connections are provided between said melt-blown microfibers and said particulate superabsorbing material, said storage layer having a strength in a wet state, measured in a machine direction, of at least 40% of a strength thereof in a dry state."

The storage layer as claimed in the instant invention describes a three-dimensional network having little or no melt connections among the fibers and the SAP. The sole motivation in the Hamajima reference for such a network is given in paragraphs 38 and 63. This discussion is, however,

taken in the context of "hydrophilic fibers". However, it is clear that Hamajima is not referring in this context to melt blown fibers as illustrated, in particular, by the example A in paragraphs 94 and 95 thereof. In fact, the recitation of "hydrophilic fibers" refers to the bi-component fibers having a thickness of 2.2.dtex. Moreover, the recitation "no or only few melt connections" is not disclosed. This claim limitation recites an interrelationship between the microfiber web and the 40 percent wet strength criterion. In particular, it is this structural limitation of little or low melt connections between the melt blown microfibers and the super-absorbing material which permits 40 percent strength in the wet state of the article, since it is this recitation which allows for expansion of the super-absorbing particles when wet without destroying the network comprising the micro staple fibers thereby leading to an increase in the wet strength. The wet strength recitation is therefore a structural recitation not disclosed by the prior art of record.

In view of the above, it is the position of the Applicant that Hamajima not only fails to anticipate the invention as claimed in claim 11, rather also fails to anticipate any single one of the elements claimed in claim 11. This fact alone is sufficient justification for the patentability of that claim.

The Applicant has chosen to focus further prosecution of this case by recasting dependent claims 16 and 18 in independent form. Claim 16 stands rejected under 35 USC 102(a) as being anticipated by Hamajima. However, claim 16 recites a two-layer structure having a top absorbing layer facing a top sheet which comprises melt blown microfibers. In contrast thereto, the Hamajima disclosure of the multi-layer member A discloses a top absorbent layer facing the top sheet which is not

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comprised of melt blown fibers. Moreover, in paragraphs 54 through 60 Hamajima discloses a multiple layer structure in which the top layer preferentially comprises fibers having lower absorption than in the lower layers to allow liquid to diffuse through into the underlying layer. Claim 16 proposes a layer facing the top sheet which is also made of melt blown microfibers. Therefore, Hamajima clearly teaches away from the limitations of claim 16.

With regard to claim 18, this claim proposes that the fiber diameter of the melt blown fibers of the top absorbing layer actually be less than the fiber diameter of the melt blown fibers in the storage layer. This contrasts sharply with the teaching of Hamajima in paragraphs 54 through 60 in which he suggests exactly the opposite in order to allow liquid to pass through into the storage layer. Hamajima therefore directly teaches away from claim 18.

In view of the above, the Applicant has the following requests:

Main request: The Applicant requests passage to issuance since the claims are clearly distinguished from the Hamajima reference.

Alternative request: the Applicant requests a further Office Action in which the claims are properly rejected on the basis of prior art. The Applicant expects this rejection to be a non-final rejection, since the scope of claims 16 and 18 is identical to that original claims 16 and 18, merely restructured as independent claims. Therefore, any new grounds of rejection to claims 16 and 18 could have equally been applied to former

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claims 16 and 18 in their dependent form and therefore constitute new rejections not necessitated by an Applicant's amendment.

No new matter has been added in this amendment.

Respectfully submitted,

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